

2/21

FIG. 3

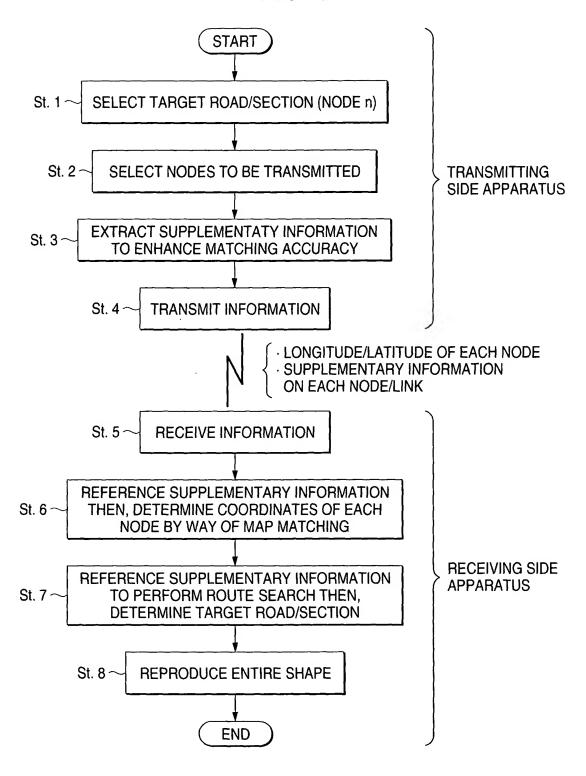


FIG. 4 (a)		FIG. 4 (c)
	VECTOR DATA TYPE (= ACCIDENT) VEC	VECTOR DATA TYPE (= ROAD)
	RELATED REGULATION INFORMATION (SINGLE-LANE TRAFFIC) (FOF	ONE-WAY TRAFFIC DIRECTION (FORWARD/BACKWARD/NONE)
	EVENT POSITION REFERENCE POINT NODE (TO NUMBER (= p1)	TOTAL NUMBER OF NODES
	DIRECTION FLAG (= FORWARD DIRECTION WITH RESPECT)	NODE NUMBER p1
	RELATIVE DISTANCE FROM REFERENCE POINT IN X	NODE 1 ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
	NODE:	NODE 1 ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
	EVENT NUMBER (= TRAFFIC ACCIDENT)	NODE NUMBER p2
	AVERAGE SPEED IN TRAFFIC CONGESTION (= 15km)	NODE 2 ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
L	EVENT POSITION REFERENCE POINT NODE NODE NUMBER (= pj)	NODE 2 ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
	DIRECTION FLAG (= BACKWARD DIRECTION WITH RESPECT TO NODE LINE)	
	RELATIVE DISTANCE FROM REFERENCE POINT (START POINT SIDE)	NODE NUMBER pn
	RELATIVE DISTANCE FROM REFERENCE POINT (END POINT SIDE) IN X	NODE n ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
	NODE	NODE n ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)

FIG. 4 (d)

VECTOR DATA TYPE (= ROAD)	SECTION NUMBER #1
ONE-WAY TRAFFIC DIRECTION (FORWARD/BACKWARD/NONE)	SECTION #1 LOWER LEFT POINT ABSOLUTE LONGITUDE
TOTAL NUMBER OF NODES	SECTION #1 LOWER LEFT POINT ABSOLUTE LATITUDE
NODE NUMBER p1	SECTION #1 UPPER RIGHT POINT ABSOLUTE LONGITUDE
NODE 1 SECTION NUMBER	SECTION #1 UPPER RIGHT POINT ABSOLUTE LATITUDE
NODE 1 NORMALIZED COORDINATE IN X DIRECTION (LONGITUDE)	
NODE 1 NORMALIZED COORDINATE IN Y DIRECTION (LATITUDE)	SECTION NUMBER #m
NODE NUMBER p2	SECTION #m LOWER LEFT POINT ABSOLUTE LONGITUDE
NODE 2 SECTION NUMBER	SECTION #m LOWER LEFT POINT ABSOLUTE LATITUDE
NODE 2 NORMALIZED COORDINATE IN X DIRECTION (LONGITUDE)	SECTION #m UPPER RIGHT POINT ABSOLUTE LONGITUDE
NODE 2 NORMALIZED COORDINATE IN Y DIRECTION (LATITUDE)	SECTION #m UPPER RIGHT POINT ABSOLUTE LATITUDE
NODE NUMBER pn	
NODE n SECTION NUMBER	
NODE n NORMALIZED COORDINATE IN X DIRECTION (LONGITUDE)	
NODE n NORMALIZED COORDINATE	

IN Y DIRECTION (LATITUDE)

N NUMBER #1 CTION #1 ABSOLUTE LONGITUDE CTION #1 NT ABSOLUTE LATITUDE CTION #1 T ABSOLUTE LONGITUDE CTION #1 NT ABSOLUTE LATITUDE N NUMBER #m CTION #m FABSOLUTE LONGITUDE CTION #m NT ABSOLUTE LATITUDE CTION #m T ABSOLUTE LONGITUDE CTION #m

FIG. 4 (e)

VECTOR DATA TYPE (= ROAD) ONE-WAY TRAFFIC DIRECTION (FORWARD/BACKWARD/NONE) TOTAL NUMBER OF NODES REFERENCE POINT NODE ABSOLUTE ORDINATE IN X DIRECTION (LONGITUD REFERENCE POINT NODE ABSOLUTE STANCE FROM REFERENCE POINT NODE BSOLUTE AZIMUTH FROM REFERENCE POINT NODE NODE NUMBER p2 DISTANCE FROM NODE p1 ABSOLUTE AZIMUTH FROM NODE p1 INODE NUMBER p2 DISTANCE FROM NODE p1 ABSOLUTE AZIMUTH FROM NODE p1 DISTANCE FROM NODE p1 ABSOLUTE AZIMUTH FROM NODE p1 DISTANCE FROM NODE P1-2					(ii)			Ш							
	VECTOR DATA TYPE (= ROAD)	ONE-WAY TRAFFIC DIRECTION (FORWARD/BACKWARD/NONE)	TOTAL NUMBER OF NODES	FERENCE POINT NODE NUMBER p0	REFERENCE POINT NODE ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)	REFERENCE POINT NODE ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)	NODE NUMBER p1	DISTANCE FROM REFERENCE POINT NODE	ABSOLUTE AZIMUTH FROM REFERENCE POINT NODE	NODE NUMBER p2	DISTANCE FROM NODE p1	BSOLUTE AZIMUTH FROM NODE p1	 NODE NUMBER pn-1	DISTANCE FROM NODE Pn-2	C as Edoly Model Littliffick attilioner

FIG. 4 (f)

REPRESENTED BY
DISTANCE AND AZIMUTH
FROM PRECEDING NODE
FROM PRECEDING NODE
DISTANCE L

ABSOLUTE
AZIMUTH 0

REPRESENTED BY LATITUDE
AND LONGITUDE AT
REFERENCE POINT NODE

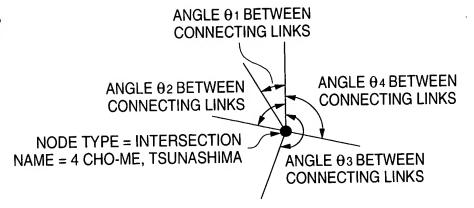
FIG. 5 (a)

VECTOR DATA TYPE (= ROAD)
ONE-WAY TRAFFIC DIRECTION (FORWARD/BACKWARD/NONE)
TOTAL NUMBER OF NODES
NODE NUMBER p1
NODE 1 ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
NODE 1 ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
ROAD TYPE BETWEEN NODES p1 AND p2 (= NATIONAL HIGHWAY)
ROAD NUMBER BETWEEN NODES p1 AND p2 (= 256)
LINK TYPE BETWEEN NODES p1 AND p2 (= MAIN LINE)
NODE NUMBER p2
NODE 2 RELATIVE COORDINATE IN X DIRECTION (LONGITUDE)
NODE 2 RELATIVE COORDINATE IN Y DIRECTION (LATITUDE)
NODE NUMBER pn
NODE n RELATIVE COORDINATE IN X DIRECTION (LONGITUDE)
NODE n RELATIVE COORDINATE IN Y DIRECTION (LATITUDE)

FIG. 5 (b)

NODE NUMBER p1
NODE TYPE (= INTERSECTION)
NAME (INTERSECTION/IC NAME)
NUMBER OF CONNECTING LINKS 14 OF p1
ANGLE 1 BETWEEN CONNECTING LINKS OF p1
ANGLE 14 BETWEEN CONNECTING LINKS OF p1
NODE NUMBER pm
NODE TYPE (= INTERSECTION)
NAME (INTERSECTION/IC NAME)
NUMBER OF CONNECTING LINKS In OF pm
ANGLE 1 BETWEEN CONNECTING LINKS OF pm
ANGLE In BETWEEN CONNECTING LINKS OF p1

FIG. 6



PREFECTURAL ROAD 123 FIG. 7 LIKELY TO BE ERRONEOUSLY CALCULATED WHEN SHORTEST-NODE p3 DISTANCE ROUTE SEARCH IS MADE WITHOUT CONSIDERING **ROAD TYPE/NUMBER** NODE TYPE = INTERSECTION NODE p2 MAIN LOCAL NAME = 4 CHO-ME, TSUNASHIMA **ROAD 923** NODE p1 **NATIONAL** HIGHWAY 256 ADJACENT INTERSECTION AROUND p1 LIKELY TO BE **ERRONEOUSLY MATCHED**

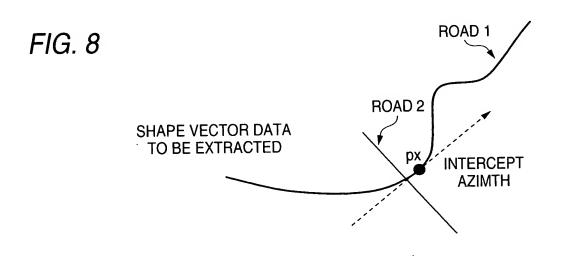


FIG. 9

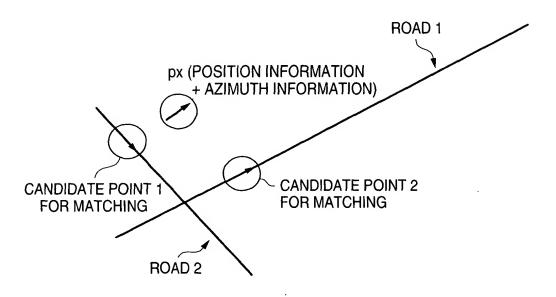


FIG. 10

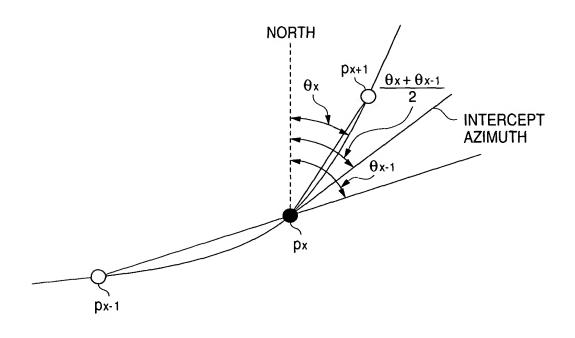


FIG. 11

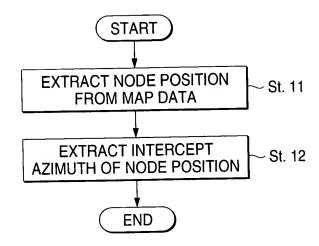


FIG. 12

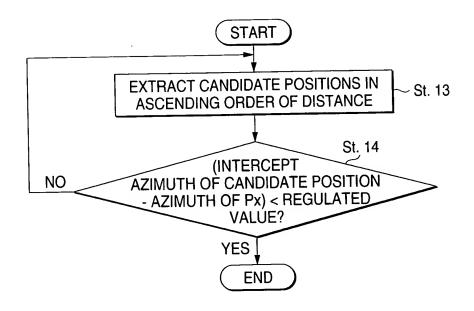


FIG. 13

VECTOR DATA TYPE (= ROAD)
ONE-WAY TRAFFIC DIRECTION (FORWARD/BACKWARD/NONE)
TOTAL NUMBER OF NODES
NODE NUMBER p1
NODE 1 ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
NODE 1 ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
NODE 1 ABSOLUTE AZIMUTH (= ANGLE θ1 AT NODE p1)
NODE NUMBER p2
NODE 2 RELATIVE COORDINATE IN X DIRECTION (LONGITUDE)
NODE 2 RELATIVE COORDINATE IN Y DIRECTION (LATITUDE)
NODE 2 RELATIVE AZIMUTH (= ANGLE θ2 AT NODE p2)
NODE NUMBER pn
NODE n RELATIVE COORDINATE IN X DIRECTION (LONGITUDE)
NODE n RELATIVE COORDINATE IN Y DIRECTION (LATITUDE)
NODE n RELATIVE AZIMUTH (= ANGLE θn AT NODE pn)
_

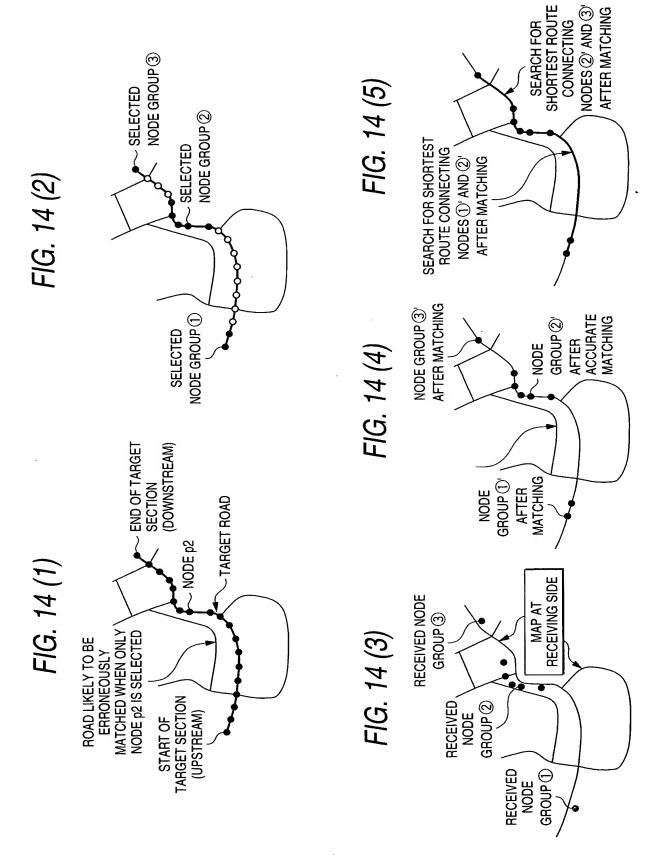


FIG. 15

VECTOR DATA TYPE (= ROAD)
ONE-WAY TRAFFIC DIRECTION (FORWARD/BACKWARD/NONE)
TOTAL NUMBER OF NODES (n)
NUMBER OF NODES m CONSTITUTING NODE GROUP 1
NODE NUMBER p1-1
NODE 1-1 ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
NODE 1-1 ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
NODE 1-1 ABSOLUTE AZIMUTH (= ANGLE θ1-1 AT NODE p1-1)
NODE NUMBER p1-m
NODE 1-m RELATIVE COORDINATE IN X DIRECTION (LONGITUDE)
NODE 1-m RELATIVE COORDINATE IN Y DIRECTION (LATITUDE)
NODE 1-m RELATIVE AZIMUTH (= ANGLE θ1-m AT NODE p1-m)
NUMBER OF NODES s CONSTITUTING NODE GROUP n
NODE NUMBER pn-1
NODE n-1 ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
NODE n-1 ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
NODE n-1 ABSOLUTE AZIMUTH (ANGLE θn-1 AT NODE pn-1)
NODE NUMBER pn-s
NODE n-s ABSOLUTE COORDINATE IN X DIRECTION (LONGITUDE)
NODE n-s ABSOLUTE COORDINATE IN Y DIRECTION (LATITUDE)
NODE n-s ABSOLUTE AZIMUTH (= ANGLE θn-s AT NODE pn-s)

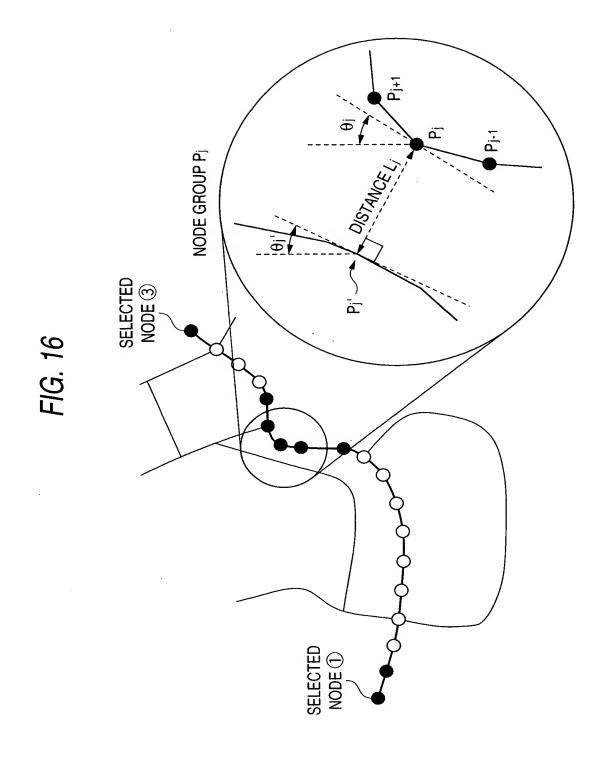


FIG. 17

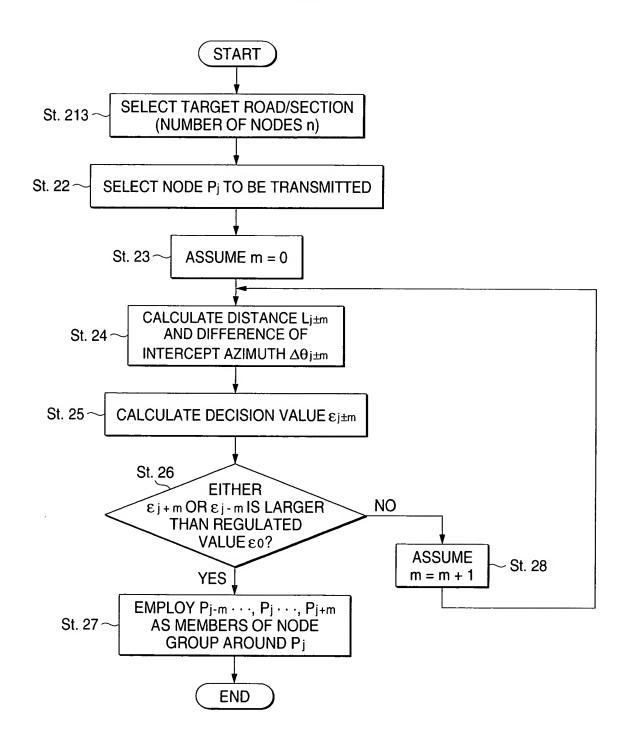


FIG. 18

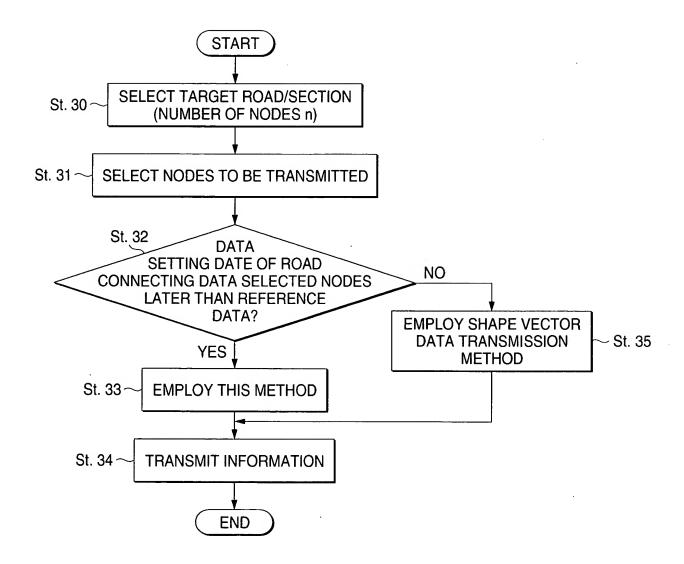


FIG. 19

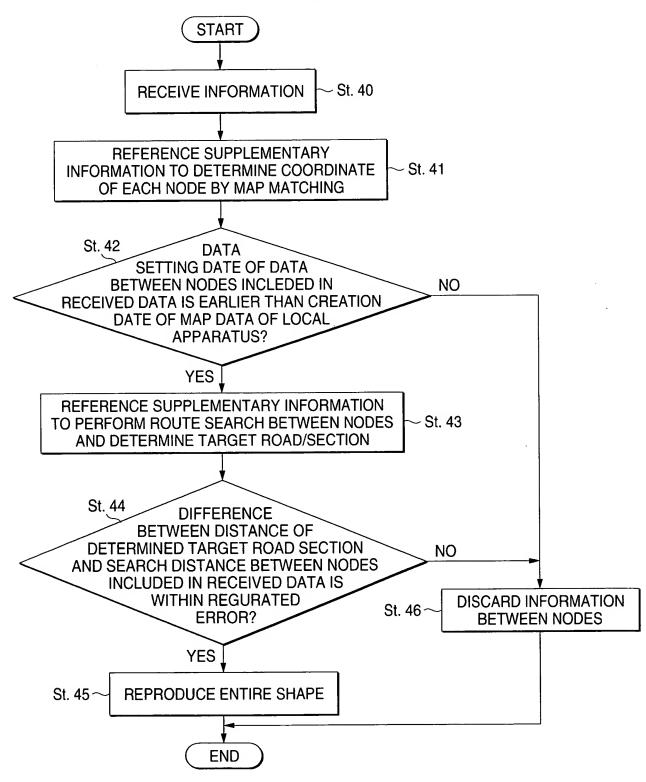


FIG. 20

KWARD/NONE)
N (LONGITUDE)
ON (LATITUDE)
IONAL HIGHWAY)
p2 (= 256)
MAIN LINE)
p1 AND p2
1 AND p2
N (LONGITUDE)
ON (LATITUDE)
N (LONGITUDE)
ON (LATITUDE)

FIG. 21

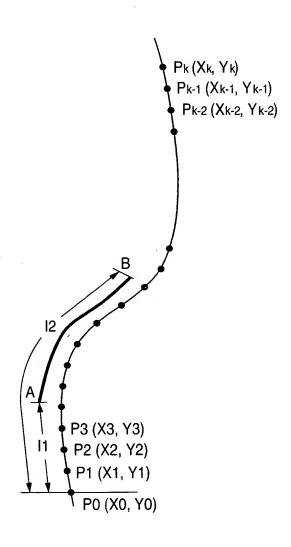


FIG. 22

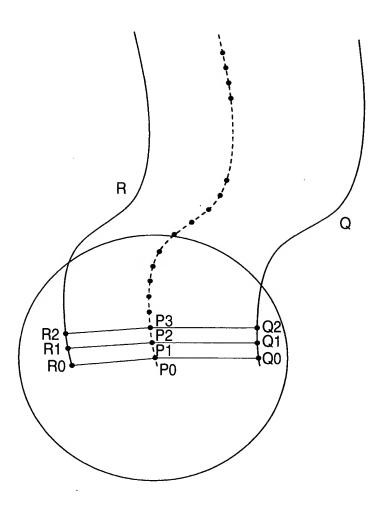


FIG. 23

